

Applicant: Virginia W. Cornish  
Serial No.: 10/056,874  
Filed: January 24, 2002  
Page 6

#### Remarks

Claims 30, 31, 35-40, 57 and 58 are pending in the subject application. By this Amendment, applicant has amended claims 30, and 38. Support for the amendments to claim 30 may be found in the specification as originally filed at, *inter alia*, page 9, lines 12 to 22; page 9, line 36 to page 13, line 11; page 11, line 22 to page 12, line 19; page 16, lines 13-14; in Example 4 beginning on page 48; and in Example 5 beginning on page 54. Support for the amendments to claim 38 may be found in the specification as originally filed at, *inter alia*, page 12, line 27 to page 13, line 15; page 9, lines 3 to 22; in Example 4 beginning on page 48; and in Example 5 beginning on page 54.

Applicant respectfully requests entry of this Amendment.

#### December 3, 2007 Telephone Conference

Applicant thanks the Examiner for participating in a December 3, 2007 telephone conference during which possible claim amendments were discussed for the purpose of expediting prosecution.

#### Claims Rejected Under 35 U.S.C. §112, Second Paragraph

The Examiner rejected dependent claim 36 under 35 U.S.C. §112, second paragraph, as allegedly indefinite for reciting "the molecule" in line 2 without have sufficient antecedent basis in independent claim 30.

In response, applicant respectfully traverses the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicant has herein amended both claim 30 and claim 36 to replace the term "the molecule to be identified". Applicant maintains that the claims as amended are clear. Accordingly, applicant respectfully

Applicant: Virginia W. Cornish  
Serial No.: 10/056,874  
Filed: January 24, 2002  
Page 7

requests that the Examiner reconsider and withdraw this ground of rejection.

The Examiner also stated that with regard to claim 30 and 38 the phrase "wherein cellular expression of the reporter gene indicates that the molecule is able to bind to the known receptor" is vague and indefinite because rather than recite a method step of doing something the claims state something that is already done. The Examiner also stated that to the extent that no "selecting" and "identifying" steps are set forth there is a gap between the steps.

In response, applicant respectfully traverses the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicant has hereinabove amended claims 30 and 38 which each recite steps d) and e) pertaining to selecting and to identifying steps, respectively, to clarify the invention. Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection.

The Examiner stated that claim 30 is indefinite for alleged insufficient antecedent basis for the phrase "the molecule" in the second line of step (a), and that the claim refers to several molecules.

In response, applicant respectfully traverses the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicant has hereinabove amended claim 30 to recite in step (a) "the molecule to be identified". Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection.

**Claims Rejected Under 35 U.S.C. §112, First Paragraph**

The Examiner rejected claims 30, 31, 35-40, 57 and 58 under 35 U.S.C. §112, first paragraph, as containing subject matter that, allegedly, is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor at the time the application was filed, was in possession of the claimed invention. The Examiner stated that this is a new matter rejection.

**Claims 30 and 38**

The Examiner stated, inter alia, that the specification only provides support for covalent binding to "part" of the "screening molecule" containing the "moiety capable of selectively binding to and selectively forming a covalent bond with a receptor domain".

During the December 6, 2007 telephone conference referenced above, the Examiner indicated that this rejection could be overcome by recitation of the phrase "a moiety capable of selectively binding to and selectively forming a covalent bond with a penicillin-binding-protein ("PBP") or a thymidine synthase ("TS") enzyme receptor domain" in step (a) of independent claim 30 and of independent claim 38. Applicant has hereinabove amended claims 30 and 38 to recite such. Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection.

**Claims 30 and 38**

The Examiner stated that claims 30 and 37 were previously amended to remove the word small. The Examiner stated that to the extent that applicant's claims are no longer limited to these "small" molecules, such increased breadth represents new matter.

In response, applicant respectfully traverse the Examiner's

rejection. Applicant notes that the claims as originally filed, and as supported, inter alia, in the detailed description refer to "a method for identifying a molecule that binds to a known target in a cell" (emphasis added) referring to "forming a screening molecule by covalently binding each molecule in the pool of candidate molecules" (original claim 30; specification at page 11, lines 22-26). In addition, the specification details that "the molecule" may be obtained from a combinatorial library (page 12, lines 18-19). Applicant also notes that the claims as originally filed, and as supported, inter alia, in the detailed description, refer to "a method for identifying an unknown target receptor to which a molecule is capable of binding" (emphasis added) (original claim 38; specification at page 12, lines 26-29). Thus the claimed method reciting a "molecule" is not new matter, being clearly supported in the specification and claims as originally filed.

Applicant notes that one of ordinary skill in the art is necessarily aware of the established nature of the yeast three-hybrid system and of the type of molecules used therein. Applicant's claimed method improves upon the three-hybrid system. Accordingly, one of ordinary skill in the art would readily understand, within the context of the claims and in light of this knowledge, the term "molecule" as recited in the claims.

Furthermore, applicant notes that the specification explains that the molecule may be an antibiotic as recited on page 23, line 16; a combinatorial library molecule as recited on page 12, lines 18-19; dexamethasone, biotin, coumermycin, tetracycline, lactose, methotrexate, FK506 as recited on page 17, lines 5-7; a retinoic acid as recited on page 22, line 34 to page 23, line 5; and a steroid as recited on page 54, lines 10-16. Applicant thus maintains that the term "molecule" as recited in the claim is clearly understood by one of ordinary skill in the art.

Applicant: Virginia W. Cornish  
Serial No.: 10/056,874  
Filed: January 24, 2002  
Page 10

The Examiner asserted that active method "screening" steps are critical to the practice of the invention.

In response, applicant traverses the Examiner's rejection, but note that claims 30 and 38 have been amended hereinabove to recite such steps. Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw this ground of rejection.

#### **Double Patenting**

The Examiner rejected claims 30, 31, 36-40, 57 and 58 as provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 133, 135-137, 141-147 and 150-160 of U.S. Patent Application No. 10/705,644 as evidenced by Fan et al. (1989) *Proc. Int. Symp. Pteridines Folic Acid Deriv.*, 9<sup>th</sup> Meeting date 1989, 116-5.

In response, applicant respectfully traverses the Examiner's rejection. In addition, it is noted that the rejection is a provisional rejection because U.S. Patent Application No. 10/705,644 has not been allowed, and, as such, applicant requests the Examiner withdraw this rejection and permit the claims to proceed to allowance if this is the only remaining rejection.